A

COMPENDIUM

OF

PICTURESQUE ANATOMY,

ADAPTED TO THE ARTS

OF

Designing, Painting, Sculpture and Engraving,

ON

FOUR FOLIO LITHOGRAPHIC PLATES,

IN WHICH ARE COMBINED THE

OSTEOLOGY AND MYOLOGY OF THE HUMAN FIGURE,

IN A MANNER ESPECIALLY ADAPTED

TO

THE OBTAINING A CORRECT KNOWLEDGE

OF

THE EFFECTS OF MOTION ON EXTERNAL FORM.

TOGETHER

With a copious Letter-Press Exposition,

Calculated for Professors, Amateurs and Students, in the Fine Arts.

THE WHOLE EXECUTED BY

JOHN RUBENS SMITH,

Professor of Drawing, Painting and Perspective.

BOSTON...PUBLISHED BY THE AUTHOR...1827.

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1827

District of Massachusetts—to wit :
District Clerk's Office.

BE IT REMEMBERED, That on the fourth day of December, A. D. 1827, in the fifty-second year of the Independence of the U. States of America, JOHN RUBENS SMITH, of the said District, has deposited in this Office the Title of a Book, the Right whereof he claims as author, in the words following, TO WIT :

"A compendium of Picturesque Anatomy, adapted to the arts of Designing, Painting, Sculpture and Engraving, on four folio Lithographic Plates, in which are combined the Osteology and Myology of the Human Figure, in a manner especially adapted to the obtaining a correct knowledge of the effects of motion on external form, together with a copious letter-press exposition, calculated for professors, amateurs and students, in the fine arts. The whole executed by John Rubens Smith, professor of drawing, painting and perspective."

In conformity to the Act of the Congress of the United States, entitled "An Act for the Encouragement of Learning, by securing the Copies of Maps, Charts and Books, to the Authors and Proprietors of such Copies, during the times therein mentioned:" and also to an Act entitled "An Act supplementary to an Act, entitled An Act for the encouragement of Learning, by securing the Copies of Maps, Charts and Books to the Authors and Proprietors of such Copies during the times therein mentioned; and extending the Benefits thereof to the Arts of Designing, Engraving, and Etching Historical and other Prints."

JOHN W. DAVIS, *Clerk*
of the District of Massachusetts.

Recommendatory Certificates.

Boston, December 1, 1827.

Dear Sir,

I have examined your "Compendium of Picturesque Anatomy," and it is with pleasure that I can give to it my sincere approbation; as a work much needed, and of immediate and practical utility to all Students of the several branches of the Fine Arts, for whose benefit it is intended. With this opinion of it, I perform but an act of duty, in recommending it to the patronage of the public—most cordially wishing you the success you deserve.

I remain, sincerely,

Yours,

WASHINGTON ALLSTON.

Boston, December 4, 1827.

Sir,

Knowing that you are about to publish a Drawing Book, I take occasion to express to you my entire approbation of your plan generally; and particularly of your views of Picturesque Anatomy. I am pleased to see a work of this sort, executed upon its true principles, and hope that you will be liberally patronized by a discerning public. **Primus in pictura, omnibus literes eruditus præcipue, Arithmetice, et Geometrice, sine quibus negabat, artem perfeci posse.*

With great regard and esteem,

Your sincere well wisher,

G. STUART.

*A Painter should be coversant with the Belles Lettres, but above all with the elementary principles of his Art, to be found in Arithmetic, Geometry, Perspective and Anatomy, without which he can never hope to obtain eminence in his profession.

From the character of the above Certificates, annexed to this first number, one may confidently hope it will receive such patronage as will foster it to the last. The contemplated work will comprise with this, three numbers, the price of the first is $2—the next two numbers will be $3 each, viz.:

3 Plates on the Skeleton or Osteology,
3 Plates on the Muscles or Myology, } One Book or Number.

2 Plates on the Head,
2 Plates on the Hands,
2 Plates on the Feet, } One Book or Number.

IN THE SECOND NUMBER WILL BE PUBLISHED A LIST OF PATRONS AND SUBSCRIBERS.

Those residing in any part of the United States, approbating this undertaking, and desirous of accellerating its accomplishment, will by sending their name and address, post paid, to the author in Boston, or to Peter Maverick, Engraver, in New-York, with reference to their agents, in either city, specifying the number of copies they may wish; will be acknowledged subscribers. No money *demanded* until the delivery of the work—But those paying $4 advance, on the delivery of the first number, will be considered patrons, and have only $2 more to pay on the completion of the whole work.

PREFACE.

In tendering these four plates for public approbation and patronage, I claim no merit on the score of originality or of anatomical knowledge sufficient, to have produced such appropriate subjects for accellerating the pursuits of every branch of the fine Arts; they are copied from the work of a celebrated Artist, named Chrysostome Martinez, a Spaniard, and student in the College of Montaigu in France, who in the year 1660, published two plates (*from which these are compiled, enlarged, and shaded, with such additions to some figures as an alteration of the Groups required;*) which were announced as the forerunners of a large work he had projected on the subject, when as history records, he mysteriously disappeared during the war preceeding the peace of Ryswick.

The merits of his work may be gathered from his prefatory address on ushering them to the world, of which the following is an extract—"As we live in an enlightened age when the Arts and Sciences are rapidly marching to perfection, it is very proper that those who have acquired some talent, each in their vocation, should impart to the public the fruits of their labour and experience; it is this that has induced the author to hazard a specimen of his works after having submitted them to the most celebrated of the Faculty in Paris, and the most distinguished Painters and Sculptures of the day."

The approbation of the "most distinguished Painters and Sculptures of the day," will surely be deemed a testimonial of the intrinsic merits of his undertaking, and while we regret that circumstances prevented his finishing the work, it is a subject of congratulation, that so far as he went, he cleared the road to a knowledge of grace in motion and form, and accellerated the pursuits of our profession by developing a system that dispenses with the necessity of becoming a professed Anatomist, in order to select what may be useful to an Artist, and fully illucidates the remarks of that inimitable author M. A. Shee, R. A. in his incomparable work, entitled "Elements of Art," where in his notes to second canto, on the "necessary aid of Anatomy" he writes thus—"When anatomical instruction is communicated by the painter, it flows directly in the channel of his Art, there is nothing wasted or misapplied in it—deficient or redundant: he shews clearly what is to be derived from one art, because he knows exactly what is wanted by the other; he assigns to anatomy its true place and importance in our studies; he neither swells it into absurd consequence, nor sinks it into dangerous disesteem; and while he forcibly impresses its utility, is qualified to expose its abuse."

I would here have ventured to apprize the young students of this rising country of the necessity of acquiring anatomical knowledge, but finding that the above-named author (*whose work ought to be in every Artist's library*) has pointed out a course of study and sound precepts, conveyed in the purest classical language, that supercedes all that can here be added on the subject, and relieves me from the awkward situation of urging the utility of a work, in the sale of which I am presumed to be personally interested. In a continuation of aforesaid notes, the author proceeds thus—"But whatever excuse may be made for the painter in not *teaching* Anatomy, there certainly can be none offered for his not *learning* it, if he omits to furnish himself with that knowledge of the essential elements of his profession, which is within the reach of zeal and industry to acquire; he must not be surprised if they who observe his deficiences, undervalue his merits, and visit on his genius the sins of his indolence."

After such authority it would be superfluous to quote the admonitions of various authors on the same subject, it therefore only remains to point out the nature and situation of this work in a student's course —after having attained a tolerable proficiency in drawing from good heads, hands, &c. he should, previous to studying from Relievo, obtain a knowledge of the proportions of the human skeleton, the names of the exterior muscles and their connection with the bones, in short with *this treatise* which was expressly designed by its celebrated author for that purpose; but the small quantity of letter press with which it was accompanied, though trite and explicit, was evidently written on a presumption that the student was already in possession of some abridged system of Anatomy, for it merely glances at the names and offices of the muscles, being doubtless intended as a guide to the student's early perception of the principles of *form* as affected by *motion*, well knowing, that by giving the mind some anticipation of the tendency of its pursuit, was the surest way to encourage a perseverance to attain its object. His next publication was to have been a system of Anatomy, expressly calculated for the young Painter and Sculpture—since his time however, there have been various editions, more or less calculated to answer the purpose, some of the best, *out of print*, but should this present work meet due encouragement, a system collated from the best editions extant, with such alterations as thirty years experience in teaching may suggest, will speedily be published, so connected with this in description and reference, as to form one Book.

EXPLANATIONS.

PLATE I.

Here are represented three figures, front, back and profile, all coming under the same lines of admeasurement; by which, at a glance, is discovered the relative proportion of any part or parts required. The first line of measurement is seen on the left side of the front figure, marked ⊕, which thus divides it into four equal parts, viz. the bottom of the trunk, which, generally speaking, is one half the total height of a figure at the junction of the bone called the os pubis. It is from this point, as from the centre of a circle, that the figure is divided into two equal parts, as may be seen by a perpendicular through this centre to the circumference, which reaches from the crown of the head to the sole of the foot; and the left arm, being horizontally extended, the tip of the longest finger just reaches the tangent of this same circle; the other arm it is evident from this position, would do the same; thus equalling the horizontal diameter of the same circle, thereby corroborating the acknowledged rule of proportion, "That in a figure whose arms being fully extended horizontally, from between the tips of the longest finger of each hand is ever equal to its own height.

In each half diameter you see two other circles which thus quarter the total height according to the first grand line of measurement, the upper quarter or diameter being through the base or broadest part of the breast, or, more properly, half way down the sternum or breast bone, as also through the arm-pits in front and profile figure, and near the ends of the shoulder-blades in back view. The lower diameter through the knees, or junction of the leg and thigh bones, are alike in each.

The next line of measurement for correcting in detail, consists of a scale of heads and faces; it being allowed by all painters and sculptors that a figure should be seven heads and half, or ten faces. A head is divided into four parts; three are given to a face, of which a nose is one third, and being one determinate and prominent feature is generally used as a rule for proportioning all details by the expression of "*so many noses*," instead of so many *thirds* of a face. The inner or thin line on the left of same figure, is divided into ten faces, then subdivided into noses, every three constituting a face, marked F 1, F 2, &c.; and every fourth nose is carried out to the first grand line to denote heads, marked H I, H II, &c.

Also on the right of the front figure is given the measurements of faces as applied to the thigh and leg; by which you see that commencing from the grand centre line through os pubis, you give two faces to the thigh bone and half a face to the knee, two faces to the leg or shin bone and half a face from ancle or instep to the flat or tread of the heel or foot. Again, on the left side of the back veiw is subjoined the measurement of noses, beginning from the bottom; the dotted line for the ancle being half a face, or a nose and half, the same for the knee; and the fifteenth nose, or fifth face, finishes at the projection of the great trochanter or outer protuberance of the thigh-bone.

These various measurements, though resulting in the same proportions, are necessary to be known in order to guide us to correctness in the various attitudes of figures where the corresponding parts are oft times hidden either by position or drapery; in proof of which observe in the extended arm, that from the middle of the hand to the head of the humerus, finds its centre in the bend of the arm or articulation of the elbow; and from the same centre shows that to the wrist is equal to so much of the humerus, as to opposite the arm-pit; in other words, from arm-pit to elbow, and from elbow to wrist, is equal; and the lower circle, marked ♌, shows that to the end of the fingers is equal to the pit of the throat, thus again demonstrating its equality to half the heighth of the figure. In the dotted line over the head is shown that its breadth is divided into five parts, two of which, viz. second and fourth, are the places and size of the eyes, having a breadth equal to one eye between, and one on each side. And on the side of the face is seen the division from the nose to the bottom of the chin divided into three parts, the line of the upper division being the place for the mouth; and the nose division is divided into four parts, the line of the upper division being the line through, or axis of the eyes, the lower division gives the heighth of the wings of the nostrils.

A hand is a face, one half is the palm the other the length of the longest finger. Of this and the foot we shall give more particulars in another work on *Practical Drawing*; premising only at present that it is not intended by these concise remarks to insinuate that mankind are formed geometrically, and all alike, but merely to show that every sculptor and painter, or amateur of observation, must have *some* criterion or given scale whereon to work, well knowing that a specific variation from a given rule constitutes *individuality*, and it has ever been thought but that the profession should come to a tacit acknowledgment of such proportions as evince most pleasingly the human form, that they may thereby communicate with and improve each other. The proportions here displayed are collated from the best works extant in hopes of giving a fair start to an American school.

On the proportions of infants we find few if any determinate rules, on account of the continued variations in the same subject up to the age of puberty. We can only observe here that the bones of the hand of an infant varying in proportion until the age of adolescence, yet has been noticed generally to be equal to one tenth of the figure of each progressive age, which is not the case with the other bones during the same periods.

This plate of the skeleton of an infant has its proportions distinctly developed by the adjoining lines in the two rules on its right side; one is a measurement of hands, the other of heads, making four and half; the scale of distinction in the left showing the proportions by hands or heads. It would be no bad rule to consider this five years old, allowing a fifth of a head each succeeding year until twenty; much however must be left to observation and judgment, and it is certain that much as nature is ever varying, the painter, &c. must have some general rule for designating infants and youths.

In order to render these plates on proportions as perspicuous as the case will admit, the osteology and myology are combined, as if transparent, which by thus exhibiting the contour of the exterior muscles in relation to the appearance of the larger bones that constitute the structure of the figure, will more forcibly impress the young student's mind, and serve greatly to refresh the memory of those conversant with the subject.

PLATE I. CONTINUED.

To avoid the perplexity arising out of a multiplicity of references, the plan here adopted is to mark each class of muscles with a separate character, which gives at first sight the parts you are in search of, for instance, if you wish to find the muscles that move the leg, you discover them to be all marked thus ⊓, with a numerical as index to their respective names and offices.

We now proceed to explain the muscular character as connected with the bones, beginning with the Humerus, in the movement of which nine muscles are concerned and occasionally more or less displayed to the eye of the painter, all marked △, number and name and office, as follows:

No. 1. Pectoralis, breast or pectoral muscle.
No. 2. Deltoides, or shoulder muscle.
No. 3. Teres major, or abaisseur propre, from its office in drawing the arm forcibly down, in some French editions it is called Le Grand Rond; it being intimately connected with two other muscles, unseen in this view, that assist in the same operation.
No. 4. Latissimus Dorsi, or the broad muscle of the back.
No. 5. Sus Espineux, supra spinator, from top of scapula to over the shoulder under the insertion of the trapezium.
No. 6. Trapezium, or great scapulary that covers both shoulders.
No. 7. Sous Espineux, infra spinator, or under the edge or spine of shoulder blades, scarcely seen here.
No. 8. Teres minor, or petit rond, is so incorporated with No. 7, as ever to appear but one muscle when in action.
No. 9. Coracoide Muscle, just seen in the right arm-pit of front figure.

No. 2 and 5 raises the arm; 3 and 4 draws it down; 1 and 9 draws it forward and round horizontally.

No. 6, 7 and 8, draws it right back, also assists in the rotatory motion by a successive concurrence with the actions of all the preceding.

The Cubitus, or Fore-arm, consists of two bones, called the Radius and Ulna. The latter bends and extends by means of six muscles, two for bending and four for extending, all marked O.

No. 1. Biceps, or double muscle, } Bends and draws the fore-arm
No. 2. Brachialis internus, } inwards.

No. 3. Longus, or long muscle, } These in action appear as one
No. 4. Brevis, or short muscle, } muscle, denominated *Triceps*
No. 5. Brachialis externus, } *extensor cubiti.*

No. 6. Anconæus, which covers the elbow, and joined with the triceps extends the arm.

The movement of the other bone of the Cubitus or fore-arm, called Radius, is effected by four muscles; two promators or extenders, and two supinators or contractors, all denominated by the mark thus |||, as belonging to the radius, as follows:

1. Pronator rotundus, or round, draws the palm of the hand downwards.
2. Pronator carre, or square, bends the palm inwards.
3. Supinator radii longus, turns the palm upwards.
4. Supinator radii brevis, by contraction holds the radius open or up, they are not very distinct in these plates.

In the fore-arm of the front figure we see but a small portion of the tendons that move the fingers, but as the work progresses this subject will be treated more at large.

The hand or wrist accomplishes its various movements by means of four muscles, marked ♂, and one great one, called the Palmaris.

1. Cubitus internus. | 3. Cubitus externus.
2. Radius internus. | 4. Radius externus.

Of the muscles that move the chest or thorax, only one is to be seen here, and that partially, marked ♀, called the grand dentele, or serrati, from their resemblance to the teeth of a saw. The rest is hidden by the latissimus dorsi, △4.

The Epigastrum, or front of the trunk, is sustained by ten muscles, five on each side of linea-alba, and are to be known by the five vowels, A E I O U.

A. Obliquous descendens exterior, or le grand oblique.
E. Obliquous descendens interior, not seen, being under the above.
I. Rectus, or belly or abdomen.

O. Transversalis, } These are under the others, the latter on the
U. Pyramidalis, } junction of os pubis.

Of all these muscles you perceive only A and I. The rest, though covered, are necessary to be known, because their actions create many changes of external form; their use being to sustain the softer parts of the abdomen under all attitudes and circumstances.

All the muscles originating in the upper structure of the body are not mentioned, because they are not seen, to wit; of those that move the thigh we see but two, marked *; No. 1, Gluteus major, No. 2, Gluteus medius. This, with a third muscle underneath, serve to extend and sustain the thigh erect.

Of the prominent and visible muscles that move the thigh and leg we count eleven, marked +, numbered as follows, viz.

No. 1. Le Couturier, or Sartorius, or taylors muscle.
No. 2. Gracilis interior, or gresle posterieur.
No. 3. Seminervosus, or le demi nerveux.
No. 4. Biceps.
No. 5. Demi membraneux, or triceps femoris.
No. 6. Membraneux, or facia lata.
No. 7. Vastus internus.
No. 8. Vastus externus.
No. 9. Gracilis exterior, or droit gresle.
No. 10. Crural.
No. 11. Popliteus, under facia lata.

No. 1 draws the leg inwardly; 2, 3, 4, 5, are for bending the leg; 7, 8, 9, 10, are for its extension, and when in action appear as one muscle richly swelled about midway of the thigh bone.

No. 6 and 11 carry the leg outwardly.

The muscles on the leg that move the foot are nine in number, and though not all distinctly seen, are noted in name, number and office, as they alternately in action greatly influence the shape of the limb. They are marked ⊓.

No. 1. Les Jumeaux, } Or the calves of the leg.
No. 2. Gasterocnemius, }
No. 3. Soliare, Solœus, or the Achilles tendon.
No. 4. Le Plantaire.
No. 5. Le Jambier de derrier, or posterior.
No. 6. Le Jambier de devant, or anterior, tibialis anticus.
No. 7. Peronæus externus.
No. 8. Peronæus internus.

No. 1, 2, 3, 4, raises up the heel and extends the foot.

No. 5, 6, bends the foot upwards and raises the toes when the foot is extended.

No. 7 and 8 draws it laterally outwards.

The rest of the muscles and tendons of the feet and hands are deferred to a separate elucidation, as before mentioned.

PLATE II.

Represents a few of the attitudes deemed necessary to a developement of the actions of the muscles in sustaining the bones.

The front figure, sustaining its erect position by resting nearly its whole weight on the right foot, causes all the muscles of that leg and thigh to be firm and much swelled about midway in each limb, as at B the calf or *gasterocnemius*, and C the *vastus internus*, and D the *rectus femoris*, E *musculus longus*, and F *vastus externus*; all which, if covered with skin and adipose, would appear nearly as one firm round muscle; and even the *gluteus major* G, is considerably swelled by being in the act of sustaining the thigh-bone.

All muscles acting by contracting in length and increasing in bulk, enjoin the necessity of a painter's becoming conversant with their names, situation and office, in order to account for their various forms which give such a picturesque expression to the respective movements; thus the arm holding a weighty box or clock calls for the exertion of all the *flexors*, as we see at H. And the *biceps* I and *brachius externus* K are swelled by being employed in supporting the *cubitus* or fore-arm.

The left arm being elevated and sustaining the hand which suspends a cord with a weight, calls for the exertions of all the *flexors* and *extensors* at L and M. And again, this *cubitus* or fore-arm is upheld by the exertion of the *deltoides* N and *biceps* O. The chest being drawn towards the left, the *sternum* or breast-bone shows its projection to advantage; the left leg being tranquil, the muscles of the thigh are left protuberant, and the only muscles apparently employed are P, the *gasterocnemius*. And Q, the *achilles tendon*, is raising the heel. The muscles that extend or point the foot downwards are not seen here or they would show you that from the knee or *patilla* to the instep is *never a straight line*.

The position of this figure is gracefully erect, and though resting on the right foot, has a part of its exertion relieved by the position of the left, which, by slightly resting on the ball of the toe, causes the line of gravity to be from the vertebræ of the neck to the back of the right heel through A. If the line A had passed through the great toe the right hip would have projected toward the line with a weight until the head of its thigh-bone became perpendicular to its great toe, in which case the left limb would have been bent or relaxed at the knee, and the foot wholly inactive, which is generally characteristic of graceful female positions.

The figure on your left represents a heavy laborious character, rather in repose. The muscles of the lower limbs are round and rich, denoting rather strength than agility. The most active muscles in this position are the shoulders or *deltoides*, particularly at D, which supports the humerous. To give the appearance of gentlemanly grace to this attitude the left leg would have to come with a relaxed or bended knee, bringing the foot supinely behind the right, and the right hip projecting almost to ⊓, the spine moving in accordance until the neck became perpendicular to the heel at △.

The other figure on your right is an attitude indicative of motion; the vertebræ of the neck being now perpendicular to the middle of the sole of the left foot, by the time, through motion, it becomes perpendicular to the left toes, the right toes would be off the ground, advancing as in walking, in order to preserve the line of gravity.

We here observe that the shoulders S S, are somewhat raised, being employed in sustaining the humerus, neither of them being within forty degrees of a horizontal position, or the deltoides would have been raised nearly as much as N in the front figure.

The curved appearance of the spine adds much to the grace of the figure; the occillation of the hips R R at their junction with the *sacrum* has a great effect on every attitude, *for that hip is always the highest that most contributes to support the body*. From the great projection of the *trochanters* and the peculiar curve of the vertebræ of the loins,* you may readily perceive the grace of the female form. The lower limbs, though round and rich, are never so protuberant or angularly expressed as in the other sex, even when more violently exerted.

* There is an accidental mistake in the manner in which the vertebræ of the loins join those of the ribs, which makes it appear broken. It was not discovered till too late for correction.

PLATE III.

In Plate III we perceive that the centre figure is similar in principle of action to the preceding, the centre of gravity determined by the perpendicular line being the same; but its right leg coming more in front, instead of crossing behind, throws the left *os femoris* and *tibia*, thigh and leg bones, much more to the right of this line than the other, and its right foot resting slightly on the toes, takes off every appearance of exertion in the figure to support itself. The arms not being employed gives less cause for the shoulders to rise, yet the left cubitus or fore-arm being strongly bent, becomes less weighty at the shoulders, thereby creating less protuberance or exertion than is evinced in the other at **D**.

Figures **B** and **C**, both in a quiescent state, with scarce any exertion to support their own limbs, but as one leans backward, the other forward, it makes a difference in their weight or pressure on the os ischium, **A** and **B**, which always supports the trunk while sitting.

These figures carry a certain expression of that grace peculiar to the waving or undulating line, which may be superficially acquired in a habit of drawing from nature, but can never be truly expressed but by those conversant with the skeleton, particularly in the manner of locking and rotatory motion in the articulation of the joints, and a knowledge of the power of curvature in the spine, under its various attitudes enables one to *catch* those graces, which the living model can never remain in long enough to be copied.

PLATE IV.

In Plate IV you will observe that the figure **A** has more exertion in the sitting posture than those in the preceding plate; it rests equally on both projections of the *os ischium* and the line of gravity (a perpendicular through the vertebræ of the neck) shows that the right foot contributes greatly to keep the figure in its seat, for if the left arm was to be brought over to the right arm, or on to the left knee, the trunk could not remain on its seat, without the *os ischium* moving further back on the bench so as to bring the lower or right knee at least perpendicular to its heel.

The right arm resting on the knee, and its hand strongly expanded, swells all the flexors at **C**. The actions of the spine are peculiarly graceful; and let it be again observed that a knowledge of its power of moving from the *atlas* to the *os sacrum*, ever enables you to sketch your designs of attitude with peculiar force of expression.

The other figures exhibit a variety in the action of this spine, even the vertebræ of the necks form four distinct degrees of action and curvature, the curvature in the hip and spine of the figure over **A**, is evidently that of a female, though otherwise of muscular strength. Its constrast may be perceived in figure **B**. **D** is also a female wholly inactive; yet at the vertebræ of the loins at d, (better expressed than in plate II,) shows that degree of curvature peculiar to the sex. **E** is a male, resting on one of the projections of the *os ischium* at e, which gives a peculiar grace to the curvature of the spine indicative of action to the attitude.

Thus far is all that need be impressed on the mind of a student desirous of informing himself of the principles of motions, as they govern forms; that imagination must be too feeble to hope for professional success that cannot go further into details without additional data or documents; in doing which, one must ever keep in the mind's eye the rules of proportion, which are here recapitulated in the form of a summary.

The face of a man is no longer than the inside of his hand.

The largest breadth of the body is the fifth of its height.

The height of the forehead is the length of a nose.

The nose is the third of a face and equal to the length of an ear.

A man's length, when he stands upright, is equal to the distance between the tips of the longest finger of each hand, when the arms are fully extended horizontally.

It was by a knowledge of such rules that the celebrated sculptor Praxitiles having taken the exact measure of a foot of the colossal Hercules, made a statue conformable to the original. And we may now add, even in our own times, that the late John Flaxman, by studying the celebrated fragment called *Michael Angelo's Torso*, was enabled to complete the figure so perfectly in accordance with the muscular demonstrations of what was preserved, as to satisfy the judges of modern times, and gain the long promised medal and reward of the Academy of England.

PLATE I.

F I.

H I

F II.

H II

F III.

F IV.

H III.

F V.

H IV

F VI.

H V

F VII.

F VIII.

H VI.

F IX.

H VII.

F X.

10 hands 2½ heads

10 faces 7½ heads

J. R. Smith fecit.

PLATE II.

J. R. Smith, fecit.

PLATE III.

J. R, Smith, fecit

PLATE IV.

J. R. Smith, fecit